

# Case Study **Aspiring Enliven, Wanaka**

## Background

Presbyterian Support Otago (PSO) is a leading aged care service provider across the Otago region. In partnership with an investor syndicate, PSO and their partners the Aspiring Lifestyle Retirement Village recently developed a new hospital and dementia facility in fast growing Wanaka. As part of the new development, the joint venture selected Spark Energy install a complete heat generation system anchored by an ETA HACK wood chip boiler and 10,000 litre buffer tank capacity to service the hot water requirements for the property. Another turn-key design-build installation by Spark Energy, the new chip boiler commenced heating the site mid-2016.

*ETA HACK wood chip boiler*



## Sustainable, economical solution

The wood fuel powering the site is sourced from plantation forests in the Otago region, utilizing a fully renewable energy source and helping to reduce the carbon footprint of the property. In addition, the advanced combustion design of the chip boiler will help minimize

A large purpose-built fuel hopper with a working capacity of 60 cubic metres was built adjacent to the boilerhouse with ready access for the fuel delivery truck. The wood fuel is conveyed mechanically into the hopper using a specialist delivery system sourced in Germany.

*Chip delivery system and hopper*



A heat meter further records the heat energy produced by the wood boiler, closely aligning the fuel contractor to the principal's interests.

An automatic sweeping arm fuel handling system with a diameter of 4 metres conveys the fuel to the boiler with the boiler converting up to 92% of the energy contained in the fuel to heat energy.

## Positive client perspective

Presbyterian Support's Property Manager Annie Robinson said "The Aspiring Enliven aged care project in Wanaka is the second wood chip boiler project that we have procured from Spark Energy. The decision to work with Spark Energy again was taken with reference to good value across the entire solution, from boiler technology to fuel supply, and a responsive after-sales care team. The performance on the Wanaka project has once again demonstrated that they care about getting it right and will work quietly in the background to make the most of wood heating for our organisation".

## Ultra-clean emissions and use of a renewable fuel

### *Key Specifications*

<b>Wood chip boiler</b>	ETA HACK 220kW
<b>Buffer tank</b>	2x 5,000L insulated buffer tank
<b>Fuel handling</b>	4m "sweeping arm" agitator
<b>Chip conveyor</b>	Tri auger chip delivery system
<b>Backup boiler</b>	LPG boiler
<b>Fuel store</b>	60m <sup>3</sup> working capacity
<b>Automation</b>	ignition, heat exchanger cleaning, fuel feeding, de-ashing
<b>Remote access</b>	hopper camera, internet controls monitoring